# Sheet 1.

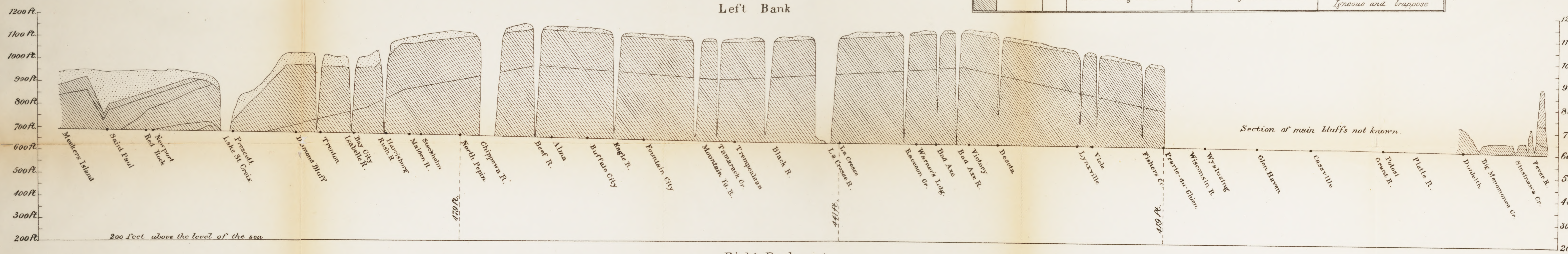
## A Longitudinal Section of the Valley of the Mississippi River, from the Junction of the Minnesota to the Junction of the Ohio River; as shown by the bluffs on the right and left banks

The datum plane of the section is the level of the sea. The base of the section is the low water of the river. The elevations of low water above the sea, at Dubuque and points below, have been taken from "Lists of Elevations" of Gardner and Gannett of Hayden's Geological Survey. Elevation of low water at Prairie du Chien and points above was compiled from our own survey and that of Col. J. N. Macomb U.S. Engineers, using the elevations of Lakes Michigan and Superior as given by the U.S. Lake Survey under General C.B. Comstock Major of Engrs. The distances on the profiles are measured along the valley and not along the course of the navigable channel, so that the low water river slope is not shown. The mouth of a tributary is shown where it enters the valley and not where it joins the river course.

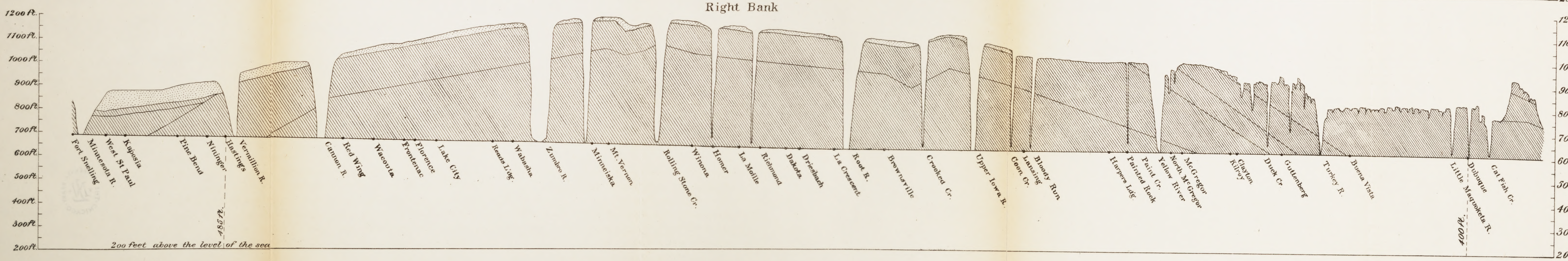
The geological data for this section were obtained mainly from the report of David Dale Owen, of October 1851, on the Geological Survey of Wisconsin, Minnesota and Iowa; from the report of Professors James Hall, J.D. Whitney and Mr. A.H. Worthen on the Geological Survey of Iowa published in 1855 and from the report of Mr. A.H. Worthen director of the Geological Survey of Illinois published in 1866. The rest of the data is from our own measurements and observations

| Vertical Sections Ill. Strata (Worthen, 1866) | | | Iowa (Hall, 1858) | Wis. Minn & Iowa (Owen, 1852) |
|---|---|---|---|---|
| Quarternary | 50 to 150 | Alluvium Loess and Drift | Alluvium and Drift | Alluvium and Drift |
| Tertiary | 150 | Eocene | Coal Measures | Shale / Coal / Shale |
| Coal Measures and Mill Stone Grit | 600 to 1200 | Coal Measures and Conglomerate | | Sub-Carboniferous, Upper Series: Upper Concretionary Limestone / Gritstones / Lower Concretionary Limestone / Gritstones / Magnesian Limestones / Geodiferous Beds |
| Sub-carboniferous | 500 to 800 | Mountain Limestone: Chester Group | Kaskaskia Limestone / Gray Brown or Ferruginous Sandstone | Archimedes Limestone / Shell Beds / Keokuk Cherty Limestone; Lower Series: Encrinital Group |
| | 50 to 200 | St Louis Group | St Louis Limestone | |
| | 100 to 150 | Keokuk Group | Warsaw Limestone / Keokuk Limestone | Encrinital Group of Burlington |
| | 25 to 200 | Burlington Limestone | Burlington Limestone | |
| | 100 to 150 | Kinderhook Group | | Argillo Calcareous Group Evans Falls |
| Devonian | 10 to 60 | Black Slate | Chemung Group | Devonian Rocks |
| | 10 to 120 | Devonian Limestone | Hamilton & Upper Helderberg | |
| | 40 to 60 | Oriskany Sandstone | | |
| Upper Silurian | 300 to 350 | Clear Creek Limestone | Le Claire Limestone | |
| | 50 to 200 | Niagara Limestone | Niagara Limestone | Upper Magnesian Limestone lead bearing |
| Lower Silurian | 60 to 140 | Cincinnati Group | Hudson River Group | |
| | 200 to 300 | Galena and Trenton | Galena and Trenton | Blue Limestone |
| | 150 | St Peters Sandstone | Upper or St Peters Sandstone | Lower Magnesian Limestone including red & white Sandstone |
| | 100 to 120 | Calciferous or Lower Magnesian | Calciferous Sandstone or Lower Magnesian Limestone | Potsdam Sandstone / Igneous and trappose |

Left Bank




Right Bank




Horizontal Scale.

0 5 10 15 20 25 30 Miles

AM. PHOTO. LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

From: U.S. Army Corps of Engineers. Report on bridging the Mississippi River (1878)
U.S. Serial Set, 45th Cong., 2d. sess., Sen. Ex. Doc. 69 [Govt. 1784]

map 4F G4042.M5C5 1878.U5 (PrCt)